* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	SEP 09	CA/CAplus records now contain indexing from 1907 to the present
NEWS 4	AUG 05	New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS 5	AUG 13	Field Availability (/FA) field enhanced in BEILSTEIN
NEWS 6	AUG 18	Data available for download as a PDF in RDISCLOSURE
NEWS 7	AUG 18	Simultaneous left and right truncation added to PASCAL
NEWS 8	AUG 18	FROSTI and KOSMET enhanced with Simultaneous Left and Righ Truncation
NEWS 9	AUG 18	Simultaneous left and right truncation added to ANABSTR
NEWS 10	SEP 22	DIPPR file reloaded
NEWS 11	DEC 08	INPADOC: Legal Status data reloaded
NEWS 12	SEP 29	DISSABS now available on STN
NEWS 13	OCT 10	PCTFULL: Two new display fields added
NEWS 14	OCT 21	BIOSIS file reloaded and enhanced
NEWS 15	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 16	NOV 24	MSDS-CCOHS file reloaded
NEWS 17	DEC 08	CABA reloaded with left truncation
NEWS 18	DEC 08	IMS file names changed

NEWS EXPRESS	NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
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NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
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FILE 'HOME' ENTERED AT 07:41:46 ON 09 DEC 2003

=> **file reg**

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 07:42:01 ON 09 DEC 2003
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STRUCTURE FILE UPDATES: 7 DEC 2003 HIGHEST RN 624286-58-4
DICTIONARY FILE UPDATES: 7 DEC 2003 HIGHEST RN 624286-58-4

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

h ebc gcg b cg eb

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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> s 65996-63-6/rn
L1 1 65996-63-6/RN

=> d l1 all

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN **65996-63-6** REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN files may result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).
ED Entered STN: 16 Nov 1984
CN Starch, acid-hydrolyzed (CA INDEX NAME)
DEF The substance resulting from treatment of starch in aqueous slurry with small amounts of an acidifying substance, such as aluminum sulfate, generally at elevated temperature and pressure. The process is usually continuous with the time of treatment very short. Degree of hydrolysis is usually determined by measurement of viscosity and controlled by rate of the slurry through the reactor, temperature, and acidity.
MF Unspecified
CI MAN, GRS
LC STN Files: CHEMLIST, MSDS-OHS, USPATFULL
Other Sources: DSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

STRUCTURE DIAGRAM IS NOT AVAILABLE

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.33	3.54

FILE 'CAPLUS' ENTERED AT 07:42:52 ON 09 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 9 Dec 2003 VOL 139 ISS 24
FILE LAST UPDATED: 8 Dec 2003 (20031208/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

h eb c g cg b cg eb

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=> s l1
L2            0 L1

=> del 12 y

=> s 65996-63-6/rn
              0 65996-63-6
              0 65996-63-6D
L2            0 65996-63-6/RN
                  (65996-63-6 (NOTL) 65996-63-6D )

=> s 65996-63-6#/rn
L3            0 65996-63-6#/RN
                  (65996-63-6#)

=> s acid (P) hydrolyzed (P) starch
        3753608 ACID
        1414495 ACIDS
        4215859 ACID
                  (ACID OR ACIDS)
         131932 HYDROLYZED
              1 HYDROLYZEDS
         131933 HYDROLYZED
                  (HYDROLYZED OR HYDROLYZEDS)
         137076 STARCH
           8076 STARCHES
         137970 STARCH
                  (STARCH OR STARCHES)
L4         1516 ACID (P) HYDROLYZED (P) STARCH

=> s l4 and coal
         205824 COAL
          35049 COALS
         207632 COAL
                  (COAL OR COALS)
L5            8 L4 AND COAL

=> d l5 1-8 all

L5   ANSWER 1 OF 8  CAPLUS  COPYRIGHT 2003 ACS on STN
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Full Text | Citing References

```
AN   1999:219773  CAPLUS
DN   130:256814
ED   Entered STN:  08 Apr 1999
TI   Starch/cationic polymer combinations as coagulants for the mining industry
IN   Jankowski, Jeffrey A.; Tobison, Calvin T.
PA   Nalco Chemical Company, USA
SO   Eur. Pat. Appl., 22 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
IC   ICM  C02F011-14
     ICS  C02F001-56
CC   60-2 (Waste Treatment and Disposal)
     Section cross-reference(s): 51, 54
FAN.CNT 2
     PATENT NO.         KIND  DATE          APPLICATION NO.   DATE
     ---------------    ----  --------      ---------------   --------
PI   EP 905091           A1   19990331      EP 1998-307846    19980928
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
     CA 2248479          AA   19990329      CA 1998-2248479   19980928
```

h ebc gcg b cg eb

	AU 9887153	A1	19990415	AU 1998-87153	19980929
	AU 739878	B2	20011025		
	ZA 9808880	A	19990428	ZA 1998-8880	19980929
PRAI	US 1997-939249	A	19970929		

AB A method for dewatering **coal** tailings, clean **coal** products and mineral slurries with an effective coagulating amt. of a combination of a cationic polymer and a starch. A preferred cationic polymer is poly(dimethylaminoethylacrylate Me chloride quaternary salt) and preferred starches are unmodified.

ST **coal** tailings dewatering coagulant; mineral tailings dewatering coagulant

IT Mining
Solid wastes
(**coal**; starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT Acrylic polymers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT Taconite
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT Solid wastes
(tailings; starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 9004-53-9, Dextrin
RL: MOA (Modifier or additive use); USES (Uses)
(1719 dextrin; starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 9005-25-8, Corn Starch, uses
RL: MOA (Modifier or additive use); USES (Uses)
(C-Gel, Drilstar EW, Min-Star 2050, Pearl Starch, Starpol 410; starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 9050-36-6, Maltodextrin
RL: MOA (Modifier or additive use); USES (Uses)
(Star Dri 100; starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 221456-85-5, Starmic 620
RL: MOA (Modifier or additive use); USES (Uses)
(Starmic 620; starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 9037-22-3D, Amylopectin, **acid hydrolyzed**
RL: MOA (Modifier or additive use); USES (Uses)
(pregelatinized; **starch**/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 26062-79-3 54076-97-0 221548-92-1, Nadex 772 221549-07-1, X-Pand'r
RL: MOA (Modifier or additive use); USES (Uses)
(starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

IT 7440-41-7, Beryllium, processes 7440-50-8, Copper, processes 13463-67-7, Titania, processes 15243-87-5, Trona
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(starch/cationic polymer combinations as coagulants for mining industry slurries and tailings)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Dow Chemical; GB 1091087 A
(2) Dow Chemical; EP 0082571 A 1983 CAPLUS
(3) Phillip, S; US 3541009 A 1970 CAPLUS

L5 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

h eb c g cg b cg eb

AN 1989:410127 CAPLUS
DN 111:10127
ED Entered STN: 08 Jul 1989
TI Adsorbents for drying of **coal** powder
IN Shibano, Takeshi; Fujimoto, Takashi; Kato, Koji
PA Mitsubishi Petrochemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C02F011-14
ICS C08L101-00
CC 51-17 (Fossil Fuels, Derivatives, and Related Products)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63241000	A2	19881006	JP 1987-74138	19870330
PRAI	JP 1987-74138		19870330		

AB Water-contg. **coal** or other mineral powder are dried by contacting with a highly water-adsorbable resin (av. particle diam ≥500 μm, preferably 1000-5000 μm, and the spent adsorbent can be sepd. and regenerated by desorption with a water-sol. org. solvent. The water-adsorbable resin includes vinyl alc.-acrylic **acid** copolymer, crosslinked polyvinyl alc., **hydrolyzed starch**-acrylonitrile graft polymer, and crosslinked polyacrylate salts (I). Thus, 100 wt. parts **coal** powder contg. 36% water and 4 wt. parts I (i.e., Diawet) were blended for ~30 min, and then screened to sep. a dried **coal** contg. 5.5% water; the spent resin was regenerated by desorption with a ~45 : vol.% aq. acetone soln.

ST **coal** drying adsorbent crosslinked polyacrylate; polyvinyl alc adsorbent

coal drying

IT **Coal** treatment
(drying, highly water-adsorbable resin as adsorbent for, for reduced energy cost)

IT 9002-89-5D, Poly(vinyl alcohol), crosslinked 9003-01-4D, Polyacrylic acid, salts, crosslinked 26299-60-5, Vinyl alcohol-acrylic acid copolymer 107830-79-5D, hydrolyzed
RL: USES (Uses)
(adsorbent, for drying of **coal** powder)

L5 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text | Citing References

AN 1981:474807 CAPLUS
DN 95:74807
ED Entered STN: 12 May 1984
TI Effects of drilling fluids on soils and plants: I. Individual fluid components
AU Miller, Raymond W.; Honarvar, Shahnaz; Hunsaker, Barbara
CS Utah Agric. Exp. Stn., Logan, UT, 84322, USA
SO Journal of Environmental Quality (1980), 9(4), 547-52
CODEN: JEVQAA; ISSN: 0047-2425
DT Journal
LA English
CC 4-3 (Toxicology)
AB The effects of 31 drilling fluid (drilling mud) components on the growth of green beans (Phaseolus vulgaris) and sweet corn (Zea mays var. Saccharata) were evaluated in greenhouse studies. Plants grew well in fertile Dagor silt loam soil (Cumulic Haploxeroll) when the soil was mixed with most soil-component mixts. at disposal proportions normally expected. Vinyl acetate and maleic **acid** polymer addn. caused significantly increased growth at the 95% confidence level. No statistically significant depression of plant growth occurred at normal rates with asbestos, asphalt, barite, bentonite, Ca lignosulfonate [8061-52-7], Na

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polyacrylate [9003-04-7], a modified tannin, ethoxylated nonylphenol, a filming amine, gilsonite, a Xanthan gum, paraformaldehyde [30525-89-4], a pipe dope, **hydrolyzed** polyacrylamide, Na **acid** pyrophosphate, Na CM-cellulose [9004-32-4], NaOH added as pellets, and a sulfonated tall oil. Statistically significant redns. in plant yields (at the 95% confidence level) occurred at normal disposal rates with a long-chained aliph. alc., $NaCr_2O_7$, diesel oil, guar gum, an Fe chromelignosulfonate, lignite, a modified asphalt, a plant fiber-synthetic fiber mixt., lignite, a nonfermenting **starch**, KCl, pregelatinized **starch**, and sulfated triglyceride. Thirteen drilling fluid components added individually to a fluid base (water, bentonite, and barite) and then to soil, were also tested for their effect on plant growth. Only the sulfated triglyceride (Torq-Trim [72027-04-4]) and the long-chain (high-mol.-wt.) alc. (Drillaid 405 [78413-46-4]) caused no plant growth redns. at either rate added. The modified tannin (Desco [54847-47-1]) caused minimal redn. in bean growth only when added to soil in excess levels. The pregelatinized **starch**, $Na_2Cr_2O_7$, nonfermenting **starch** (Dextrid [9004-53-9]), plant and synthetic fiber mix (Kwik-Seal [70226-02-7]), Fe chromelignosulfonate (Q-Broxin [8075-74-9]), and guar gum (Gendril Thik [9000-30-0]) did not depress plant growth at normal disposal rates used, but they did depress plant growth with the abnormally high (excess) rates of addn. to soil. No plants grew at either normal or excessive addn. rates when KCl was used. Also, no plants grew when abnormally high rates of $Na_2Cr_2O_7$, lignite + NaOH, or Ca lignosulfonate + NaOH were added.

ST drilling fluid toxicity bean corn

IT Soil pollution
(by drilling fluids, beans and corn in relation to)

IT Bean
Corn
(drilling fluid components toxicity to)

IT Toxicity
(of drilling fluid components, to beans and corn)

IT Tall oil
RL: BIOL (Biological study)
(sulfonated, toxicity of, to beans and corn, drilling fluids in relation to)

IT Drilling fluids and muds
(toxicity of, to beans and corn)

IT Fuels, diesel
(toxicity of, to beans and corn, drilling fluids in relation to)

IT Asbestos
Asphalt
Bentonite, biological studies
Coal, brown
Gilsonite
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity of, to beans and corn, drilling fluids in relation to)
1310-73-2, biological studies 7447-40-7, biological studies 7758-16-9 8061-52-7 8075-74-9 9000-30-0 9003-04-7 9004-32-4 9004-53-9 9016-45-9 10588-01-9 11138-66-2 13462-86-7 24980-59-4 30525-89-4 37224-28-5 54847-47-1 70226-02-7 72027-04-4 78413-46-4
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity of, to beans and corn, drilling fluids in relation to)

L5 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text | Citing References

AN 1980:453341 CAPLUS
DN 93:53341
ED Entered STN: 12 May 1984
TI Destabilization of sludges with hydrolyzed starch flocculants
IN Yong, Raymond Nenyiu; Sethi, Amar Jit
PA Great Canadian Oil Sands Ltd., Can.
SO Brit. UK Pat. Appl., 12 pp.

h eb c g cg b cg eb

CODEN: BAXXDU
DT Patent
LA English
IC C02F001-56; C08L003-02
CC 60-2 (Sewage and Wastes)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2027684	A	19800227	GB 1979-27035	19790802
	GB 2027684	B2	19830330		
	CA 1121555	A1	19820413	CA 1978-308619	19780802
	IN 153565	A	19840728	IN 1979-CA789	19790730
	AU 7949406	A1	19800207	AU 1979-49406	19790731
	AU 535348	B2	19840315		
	NL 7905919	A	19800205	NL 1979-5919	19790801
	DE 2931278	A1	19800228	DE 1979-2931278	19790801
	DE 2931278	C2	19890518		
	JP 55061904	A2	19800510	JP 1979-97410	19790801
	JP 62006876	B4	19870213		
	DE 2954628	C2	19901206	DE 1979-2954628	19790801
	IN 153622	A	19840728	IN 1982-CA537	19820513
PRAI	CA 1978-308619		19780802		
	IN 1979-CA789		19790730		

AB Phosphate slimes or aq. colloidal sludge suspensions from **coal** and tar sands mining, contg. clay minerals or metal oxides and/or hydroxides, were destabilized by treatment with wheat, corn, or potato **starch** [9005-25-8] (≥50 ppm, **hydrolyzed** in the presence of alkali metal salts), cement (≥3 lb/100 Imperial gel bituminous tar sands sludge contg. 20% solids), and a lower aliph. alc., acetone, yeast, or lactic **acid**. E.g., centrifugal and free sedimentation rates were increased by treatment of 50 mL tar sand sludge (10% solids content, 0.25% bitumen) with Ca Al phosphate **hydrolyzed** wheat **starch** (200 ppm) and yeast (80 ppm), alc. (1000 ppm), or lactic **acid** (88 ppm).

ST sludge destabilization hydrolyzed starch

IT Flocculating agents
(hydrolyzed starch, for sludge destabilization)

IT Waste solids
(Sludges, destabilization of, with hydrolyzed starch flocculants)

IT 9005-25-8D, hydrolyzed
RL: PROC (Process)
(as flocculant for sludge destabilization)

L5 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text | Citing References

AN 1969:473801 CAPLUS
DN 71:73801
ED Entered STN: 12 May 1984
TI Treatment of water and sludge
AU Hollo, Janos
CS Tech. Univ., Budapest, Hung.
SO Australian Chemical Engineering (1969), 10(5), 19-24
CODEN: ASCEAE; ISSN: 0004-8828
DT Journal
LA English
CC 60 (Sewage and Wastes)
AB Effectiveness of various polymeric flocculating agents in the treatment of waste water and sludge is discussed. Polyacrylamide (I) agents produced greater sedimentation rates than poly(methacrylic **acid**), poly(acrylic **acid**), **hydrolyzed starch**, or CM-cellulose. Successful sedimentation by these polyelectrolytes was possible only in a well-defined range of solid matter concn. that had both max. and min. concn. limits. Uses of I in the sepn. and dehydration of fine sludge from **coal**-ore dressing plants, for the purification of surface waters, and for the treatment of

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industrial sewages were described.

ST polymers flocculation waste waters; polyacrylamides flocculation waste waters; polyelectrolytes flocculation waste waters; flocculation waste waters polyelectrolytes; sedimentation waste waters polyelectrolytes; surface waters purifn polyelectrolytes

IT **Coal**
RL: PROC (Process)
(cleaning of, polyacrylamide in flocculation of sludge from)

IT Wastes
(coagulation of, by polyelectrolytes)

IT Water purification
(coagulation, by polyelectrolytes)

IT Polyelectrolytes
(flocculation by)

IT Cellulose, carboxymethyl ether
Methacrylic acid, uses and miscellaneous
RL: PROC (Process)
(flocculation by)

IT 9003-01-4 9003-05-8
RL: PROC (Process)
(flocculation by)

IT 9005-25-8, uses and miscellaneous
RL: USES (Uses)
(hydrolyzate, flocculation by)

L5 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text | Citing References

AN 1925:11852 CAPLUS
DN 19:11852
OREF 19:1586c-e
ED Entered STN: 16 Dec 2001
TI Sublimation of "unsublimable" substances
AU Kurschner, Karl
SO Mikrochem. (1925), 3, 1-20
DT Journal
LA Unavailable
CC 11D (Biological Chemistry: Botany)
AB K. has subjected the lignin from pine, oak, rye straw, and red beech, prepd. in various ways, pine shavings, pine mold, sulfite liquors, lignite, brown **coal** and an inclusion in hard **coal** to sublimation and in every case has obtained crystals of vanillic **acid** sometimes mixed with vanillin and NH4Cl. The vanillic **acid** is the result of the oxidation of vanillin. The residue resembles caramelized sugar and has a vigorous reducing action on Fehling soln. Because of the formation of this residue together with some HCHO, K. suggests that the vanillic **acid** represents a group that has been combined as a glucoside. Coniferin found in the cambian fluid of plants undergoes the same changes as lignin when sublimed; hence it is probable, according to K., that lignin may be a polymerization product of the former. When the complex is heated the carbohydrate portion becomes dehydrated and caramelized, the coniferyl alcohol is **hydrolyzed** from it and oxidized to vanillin, vanillic **acid** and AcOH. **Starch** and various tannins also yield considerable quantities of sublimates. These have not been investigated.

IT Strawberries
(acids of)

IT Sublimation
(of unsublimable substances)

IT 121-34-6, Vanillic acid
(in lignin)

IT 531-29-3, Coniferin 9005-53-2, Lignin
(sublimation of)

L5 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

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Full Text | Citing References

AN 1924:6485 CAPLUS
DN 18:6485
OREF 18:887e-g
ED Entered STN: 16 Dec 2001
TI Built-up adsorbent charcoal
IN Morrell, J. C.
DT Patent
LA Unavailable
CC 18 (Acids, Alkalis, Salts, and Sundries)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 1478985		19231225	US	

PI US 1478985
AB Carbon black or the like is freed from volatile oily impurities by treatment with steam at a temp. of 450-600° for several hrs., mixed with an emulsified binder which may be formed of pitch, NH4 tannate, tannic **acid**, anthracene oil and H2O, dried, molded under a pressure of 16-30 tons per sq. in. and crushed or ground. The material is then activated by heating (e. g., to 850° for 4 hrs., to 925° for 1/2 hr. and to 925-50° for 3 hrs.). A further heating (which may be with accompanying steam treatment) after partial cooling improves the qualities of the product and a third heating also effects further improvement. U. S. 1,478,986 relates to a similar process in which the C initially used is mixed with a binder formed of pitch, **coal** tar, or similar material dissolved in C6H6, solvent naphtha, toluene, xylene, CCl4, a paraffin hydrocarbon oil of low b. p. or a similar volatilizable solvent, before molding and heat-treatment. U. S. 1,478,987 specifies preliminary mixing of the C with a non-fluid binder which chars on heating, e. g., a sugar, **starch**, pectins, proteins, **hydrolyzed** wood waste, sulfite-liquor pitch, **coal**-tar or resin pitch.
IT Charcoal
(adsorbent)

L5 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

Full Text | Citing References

AN 1917:796 CAPLUS
DN 11:796
OREF 11:173i,174a-e
ED Entered STN: 16 Dec 2001
TI Chemical composition, digestibility, and feeding value of vegetable-ivory meal
AU Beals, C. L.; Lindsey, J. B.
CS Mass. Agr. Expt. Sta.
SO Journal of Agricultural Research (Washington, D. C.) (1916), 7, 301-20
CODEN: JAGRAC; ISSN: 0095-9758
DT Journal
LA Unavailable
CC 12 (Foods)
AB Vegetable ivory is the seed or nut of Phytelephas macrocarpa, and is used for the manufacture of buttons, etc. The resultant sawdust, chips, and turnings has been mixed with other ingredients to be used as a cattle food. Analyses show vegetable ivory to be carbohydrate in nature, containing about 5% protein and 75% N-free extract. Fat and mineral matter are negligible, while crude fiber averages 7%. 92.5% of the N-free extract is mannan, a polymer of mannose. Pentosans are present to the extent of 2.5%. Lignin, galactan, **starch**, and dextran were not found. A non-nitrogenous "alcoholic ppt." amounting to about 2.5% is present; it is not pentosic in nature. It differs from fruit "pectin" in that it does not form mucic **acid** and does not reduce Cu. By the use of Fehling's soln. about 0.5% H20-sol. reducing material and 2% so-called total sugars are shown to be present, after inversion with HCl in the cold. The mannan

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is not entirely **hydrolyzed** without at least 4 1/2 hrs. boiling in an **acid** soln. The characteristic "**acid**" color of the soln. bleaches out at the completion of hydrolysis. Practically the entire N-free extract is accounted for in the form of a hexose sugar or its condensation product, except a small % of pentoses and pectin. The energy equiv. of the material ranks well with other carbohydrate foods, and is equal to 1/2 that of soft **coal**. Sheep ate vegetable-ivory meal readily when it was mixed with other grains. 84% of the dry matter and 92% of the N-free extract were digested. All the carbohydrates appeared to have been **hydrolyzed** and absorbed in the digestive tract. Cows ate the material when mixed with other food, without evidence of digestive disturbances. They refused to eat it if fed by itself. When fed in mixed food, the increase in milk was sufficient to indicate its positive value as a productive feed. Though exact relative values cannot be shown, it seems certain that vegetable-ivory meal does not fully equal corn meal for milk production. A list of 14 citations is appended.

IT Ivory nuts
(meal)

IT Phosphates
(recovery of, from natural phosphates)

=> **file stnguide**

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	35.06	38.60
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.21	-5.21

FILE 'STNGUIDE' ENTERED AT 07:44:52 ON 09 DEC 2003

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 5, 2003 (20031205/UP).

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